

## United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,806	11/17/2003	Melissa A Petruska	S-100,641	5182
35068 7.	590 11/10/2005	EXAMINER		INER
UNIVERSITY OF CALIFORNIA			KUGEL, TIMOTHY J	
LOS ALAMOS NATIONAL LABORATORY P.O. BOX 1663, MS A187		IORY	ART UNIT	PAPER NUMBER
LOS ALAMOS	S, NM 87545		1712	
		•	DATE MAILED: 11/10/2005	5

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)				
		10/715,806	PETRUSKA ET AL.				
	Office Action Summary	Examiner	Art Unit				
		Timothy J. Kugel	1712				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply							
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).							
Sta	atus		!				
	1) Responsive to communication(s) filed on						
	2a) This action is <b>FINAL</b> . 2b) This action is non-final.						
	3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims							
4)⊠ Claim(s) <u>1-26</u> is/are pending in the application.							
4a) Of the above claim(s) is/are withdrawn from consideration.							
5) Claim(s) is/are allowed.							
į	6) Claim(s) is/are rejected.						
	7) Claim(s) is/are objected to.	oloction requirement					
8)⊠ Claim(s) <u>1-26</u> are subject to restriction and/or election requirement.							
Application Papers							
9) The specification is objected to by the Examiner.							
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.							
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).							
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.							
Priority under 35 U.S.C. § 119							
	12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
	a) ☐ All b) ☐ Some * c) ☐ None of:	to have been received					
	1. Certified copies of the priority documents have been received.						
	2. Certified copies of the priority documents have been received in Application No						
	3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).						
	* See the attached detailed Office action for a list of the certified copies not received.						
See the attached detailed Office detail for a field of the detailed detailed office detailed of the detailed o							
1	the above antical						
	ttachment(s)  Notice of References Cited (PTO-892)	4) 🔲 Interview Summa					
2	Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail	Date Il Patent Application (PTO-152)				
3	Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08 Paper No(s)/Mail Date	6) Other:					
	- apor 110(0)/111011						

Application/Control Number: 10/715,806 Page 2

Art Unit: 1712

### **DETAILED ACTION**

1. Claims 1-26 are pending as filed 17 October 2003.

#### Restrictions

- 2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-8 and 19-26, drawn to a process of preparing a solid composite and a solid composite, classified in class 516, subclass 98.
  - II. Claims 9-14, drawn to a process of preparing a solid composite, classified in class 516, subclass 98.
  - III. Claims 15-18, drawn to an alcohol soluble nanocrystal-polymer complex colloid, classified in class 516, subclass 33.

The inventions are distinct, each from the other because of the following reasons:

- 3. Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the nanocrystals of Group I do not require the hydrophobic ligands as claimed for those of Group II. The subcombination has separate utility such as a process of producing a solid composite as claimed.
- 4. Inventions III and I and III and II are related as product and processes of use.

  The inventions can be shown to be distinct if either or both of the following can be

Art Unit: 1712

shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the alcohol soluble colloid could be used to produce solid nanocrystal-polymer complex particles for use without the sol-gel matrix.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

#### Election of Species IA

6. Should applicant elect to proceed with the claims of Group I, claims 5, 21 and 25 are generic to a plurality of disclosed patentably distinct species comprising the sol-gel precursor material. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

# Election of Species IB

7. Should applicant elect to proceed with the claims of Group I, claims 6, 22 and 26 are generic to a plurality of disclosed patentably distinct species comprising the

Art Unit: 1712

nanocrystals. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

#### Election of Species IC

8. Should applicant elect to proceed with the claims of Group I, claim 19 is generic to a plurality of disclosed patentably distinct species comprising the terminal group of the nanocrystals. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

### Election of Species IIA

9. Should applicant elect to proceed with the claims of Group II, claim 9 is generic to a plurality of disclosed patentably distinct species comprising the  $X_x$ -( $Z_n$ )- $Y_y$ 

Art Unit: 1712

hydrophobic ligand of the nanocrystals. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

### Election of Species IIB

10. Should applicant elect to proceed with the claims of Group II, claim 11 is generic to a plurality of disclosed patentably distinct species comprising the sol-gel precursor material. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

# Election of Species IIC

11. Should applicant elect to proceed with the claims of Group II, claim 12 is generic to a plurality of disclosed patentably distinct species comprising the nanocrystals.

Art Unit: 1712

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even

though this requirement is traversed.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

# **Election of Species IIIA**

12. Should applicant elect to proceed with the claims of Group III, claim 18 is generic to a plurality of disclosed patentably distinct species comprising the nanocrystals.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

#### Elections

13. A telephone call was made to Bruce Cottrell on 3 November 2005 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

14. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

#### Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Kugel whose telephone number is (571) 272-1460. The examiner can normally be reached on 6:30 AM - 4:30 PM Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/715,806 Page 8

Art Unit: 1712

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TJK AU1712

ROBERT E.L. SELLERS PRIMARY EXAMINER